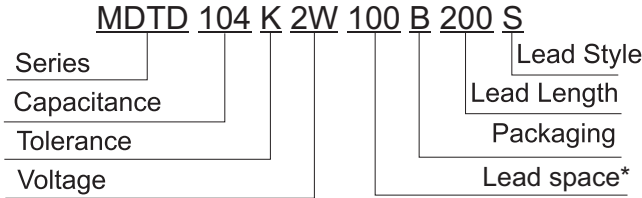


INTRODUCTION

MDTD Series are constructed specifically for active filtering circuits like those used in power factor correction applications.

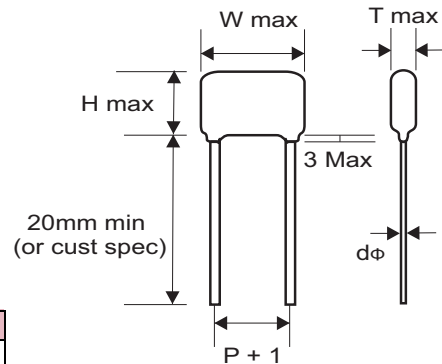
PART NUMBER EXAMPLE



* Leadspace is straight lead non-formed original leadspace.

FEATURES

- Self-healing property
- Safe-film construction
- RoHS Compliance
- Ultra-miniature Size
- Ideal for Power Factor correction applications



SPECIFICATIONS

Items	Performance			
Operating Voltage Range	450Vdc, 630Vdc			
Rated Temperature	-40 °C ~ +85°C			
Usable Upper Category Temperature	+110 °C (Derating ratio of rated voltage over +85 °C ~ +110°C: 1.5% per °C of Rated Voltage)			
Capacitance Range	0.033 μF ~ 3.3 μF			
Capacitance Tolerance	±2% (G), ±5% (J), ±10% (K)			
Dissipation Factor	1.0% (max.) at 1KHz 1.6% (max.) at 10KHz			
Insulation Resistance Terminal to Terminal	Voltage Charge: 100Vdc x 1min (at 20 °C ±5°C) ≥ 9,000MΩ for C ≤ 0.33μF ≥ 3,000MΩ x μF for C > 0.33μF			
Withstand Voltage	Terminal to Terminal: (at 20 °C ± 5°C) 1.6 x VR applied for 2sec. (cut off current 10mA)			
	Slow-up voltage speed: 100V/sec			
Rated Voltage Pulse Slope dV/dt (V/μs)	P			
	VR \ P	10mm	15mm	22.5mm
	450Vdc	110	45	20
630Vdc	160	65	30	

PERFORMANCE

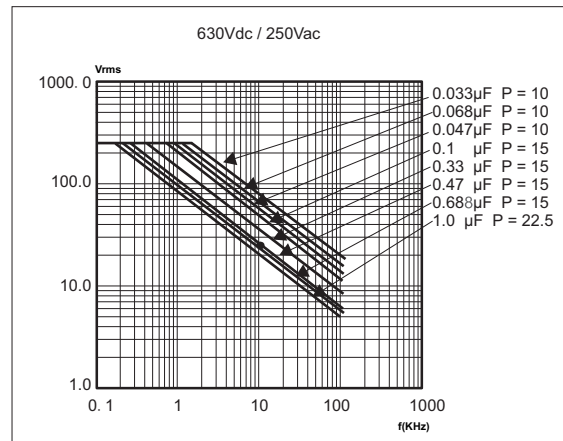
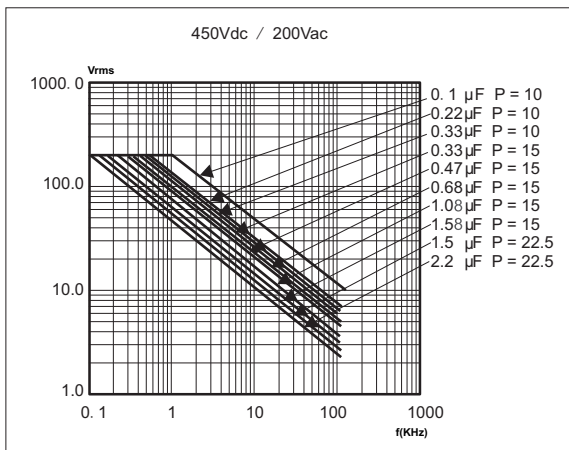
Item	Test Methods	Requirements
Resistance to Soldering Heat IEC 60068-2-20"	Solder Bath: 260°C ± 5°C Immersion Time: 10sec ± 1sec	Capacitance Change ΔC/C : ≤2% DF Change Δtanδ: 0.5% at 1KHz IR: ≥ limit value
Resistance to Vibration IEC 60068-2-6"	Frequency Range: 10Hz to 55Hz Amplitude: 1.5m/m Duration: 6 hours	There shall be no Visible Damage, No Intermittent Contact, No Open or Short Circuit
Damp Heat, Steady State IEC 60068-2-3"	Temperature: 40 °C ± 2°C Relative Humidity: 90% to 95% Duration: 1,000 hours	Capacitance Change ΔC/C : ≤5% DF Change Δtanδ: 0.5% at 1KHz IR: ≥ 50% limit value
Electrical Endurance IEC 60384-2"	Temperature: 85 °C + 2°C Voltage Applied: 1.10 x Vr(DC) Duration: 1,000 hours	Capacitance Change ΔC/C : ≤5% DF Change Δtanδ: 0.5% at 1KHz IR: ≥ 50% limit value

■ **MAXIMUM DIMENSIONS (mm)**

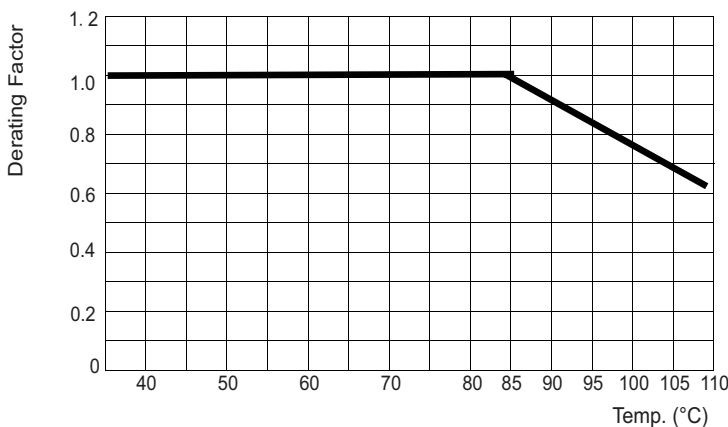
R.V.	450Vdc (2W)										
Size (μF)	W	H	T	P	dφ	Size (μF)	W	H	T	P	dφ
0.047	13.0	13	5	10	0.6	1.0	13	19	8	10	0.8
0.068	12.5	10	5	10	0.6		18.0	17	7.5	15	0.8
0.1	12.5	9.5	4.5	10	0.6		26.0	16	7	22.5	0.8
	18.0	11	5	15	0.8	1.2	18.0	18	8	15	0.8
0.15	12.5	12	4.5	10	0.6	1.5	13.0	21.5	9.5	10	0.8
	12.5	12	6.5	10	0.6		18.0	18.5	8.5	15	0.8
18.0	11.5	6	15	0.8	26.0		17.5	7	22.5	0.8	
0.22	12.5	12	6	10	0.6	2.2	18.0	21.5	11.5	15	0.8
	18.0	13	5	15	0.8		26.0	19	9	22.5	0.8
0.33	12.5	12	6	10	0.6		3.3	26.0	23.5	13	22.5
0.47	12.5	15.5	6.5	10	0.6	3.3	26.0	23.5	13	22.5	0.8
	18.0	13	5.5	15	0.8		0.68	12.5	16	7.5	10
18.0	15.5	5.5	15	0.8	18.0			15.5	5.5	15	0.8

R.V.	630Vdc (2J)				
Size (μF)	W	H	T	P	dφ
0.033	12.5	10.5	4.5	10	0.6
0.047	12.5	13	5	10	0.6
	18.0	11	5	15	0.8
0.068	13.0	13	6	10	0.6
	18.0	11	5	15	0.8
0.1	12.5	16	6	10	0.6
	18.0	11	5	15	0.8
0.22	18.0	13	5	15	0.8
0.33	18.0	13	5	15	0.8
0.47	18.0	17.5	9	15	0.8
0.68	18.0	20.5	10.5	15	0.8
1.0	26.0	20.5	9.5	22.5	0.8

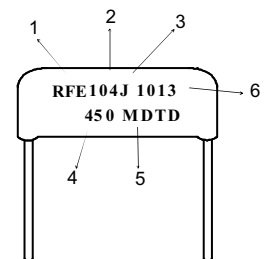
■ **RATED VOLTAGE (Vrms) VS. FREQUENCY**



■ **MAX. DC & AC VOLTAGE VS TEMPERATURE**



■ **MARKING**



1. Name or Symbol
2. Nominal Capacitance in μF
3. Capacitance Tolerance
4. DC, Rating, Voltage
5. Type Name
6. Date Code
Year: 11 → 2011, 12 → 2012, 13 → 2013
Week On: 01~53

■ **MAXIMUM CURRENT, AMPS (rms)**

450Vdc / 200Vac

CAP (μF)	P	15.75 KHz	35 KHz	45 KHz	65 KHz	80 KHz	100 KHz
0.047	10	0.18	0.20	0.21	0.23	0.24	0.25
0.068	10	0.20	0.22	0.23	0.24	0.25	0.26
0.1	10	0.36	0.46	0.50	0.56	0.60	0.64
	15	0.15	0.17	0.19	0.20	0.21	0.22
0.15	10	0.40	0.48	0.53	0.58	0.62	0.66
0.22	10	0.45	0.57	0.61	0.69	0.73	0.78
	15	0.18	0.19	0.20	0.21	0.22	0.23
0.33	10	0.48	0.60	0.65	0.72	0.74	0.80
	15	0.77	0.97	1.05	1.17	1.25	1.32
0.47	10	0.50	0.70	0.80	0.90	1.00	1.10
	15	0.67	0.88	0.99	1.06	1.17	1.31
0.68	10	0.60	0.90	1.00	1.10	1.20	1.30
	15	0.88	1.13	1.24	1.41	1.48	1.63
1.0	10	0.80	1.20	1.30	1.50	1.60	1.80
	15	1.06	1.38	1.59	1.77	1.84	1.91
1.2	15	1.20	1.50	1.65	1.85	2.00	2.20
1.5	10	0.98	1.30	1.40	1.60	1.70	1.90
	15	1.40	1.70	1.80	2.00	2.20	2.40
	22.5	1.38	1.68	1.78	1.96	2.00	2.04
2.2	15	1.70	2.00	2.20	2.35	2.50	2.70
	22.5	2.30	2.37	2.43	2.52	2.55	2.60
3.3	22.5	2.65	2.69	2.80	2.81	2.82	2.90

■ **MAXIMUM CURRENT, AMPS (rms)**

630Vdc / 250Vac

CAP (μF)	P	15.75 KHz	35 KHz	45 KHz	65 KHz	80 KHz	100 KHz
0.033	10	0.14	0.20	0.22	0.25	0.27	0.30
0.047	10	0.18	0.24	0.30	0.35	0.39	0.42
0.068	10	0.21	0.29	0.32	0.37	0.41	0.44
0.1	10	0.25	0.37	0.45	0.50	0.55	0.63
0.047	15	0.16	0.22	0.24	0.27	0.30	0.32
0.068	15	0.23	0.26	0.32	0.35	0.40	0.44
0.1	15	0.42	0.55	0.58	0.65	0.69	0.73
0.22	15	0.58	0.62	0.67	0.78	0.80	0.85
0.33	15	0.91	1.15	1.25	1.40	1.48	1.58
0.5	15	0.85	1.08	1.18	1.30	1.40	1.49
0.68	15	1.16	1.48	1.60	1.80	1.90	2.05
1.0	22.5	1.85	2.25	2.36	2.60	2.70	2.85

■ **PACKAGING CODE**

Method	Bulk	Ammo	Reel
Code	B	A	R

■ **LEAD LENGTH FROM SEATING PLANE**

mm	5	10	15	20	25
Code	050	100	150	200	250

■ **TAPE CODE** (Lead spacing of tape, if taped)

Spacing	10mm	15mm
Packing	A	A
Code	RT3	RT4

■ **LEAD STYLE CODE EXAMPLE**

